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THE CHINQUAPIN, TWO RARE EUONYMUS, THE DAWN REDWOOD, AND THE JAPANESE PLUM YEW

Chinquapin, *Castanea pumila* (Mill)

One would expect a name as euphonious as Chinquapin to refer to something interesting in plant material, and so it does, to *Castanea pumila,* a dwarfish bushy Chestnut whose chosen home is the slopes of the Southern Alleghenies. It is also found as far west as Arkansas and Texas, however, where it often attains small tree stature.

Notwithstanding its Southern origin, for it ranges northward only in Pennsylvania and New Jersey, it has proved entirely hardy at the Arboretum. Growing to 8 or 10 feet tall and of wide spreading, sometimes stoloniferous growth, it is a dual purpose bush valued both for its ornamental appeal and as a nut bearer. Its natural preference for dry hillsides, bare ridges or sometimes the margins of low swamp lands has not limited its adaptability to local conditions.

One look at Chinquapin foliage gives an immediate clue to its generic relationship, for though much reduced in size, the prominently veined, bristly margined oblong lance-shaped leaves (3 to 6″ long) are unmistakably Chestnut. Pale green and shiny when they emerge from the bud they later become dark green with lighter, soft wooly undersurfaces. The fall color change is to clear yellow. Further resemblance to the Chestnut is evident in the two valved prickly coated burs (1″ diameter) enclosing a small solitary nut with a sweet flavored kernel. They occur profusely, in twos or in clusters of several along the densely pubescent branchlets.

Mid-June is blossom time for the Chinquapin and its season of greatest decorative interest. The staminate catkins are the showiest, elongated creamy inflorescences a quarter of an inch in diameter and 5 or 6 inches in length, borne both erectly and angularly throughout the plant. The less conspicuous female flowers occur in prickly involucres at the base of the male flowers. Their fragrance is less objectionable than that of some Castaneas.

Euonymus macroptera (Rupr.), syn. *"ussuriensis"* (Maxim.)

The Euonymus clan, renowned for its colorful fruit, includes among its Oriental representatives a rare form of distinctive charm whose uniquely spectacular fruit is unexcelled by any other Euonymus. This is the Northeastern Asiatic species, *"macroptera"*, a shrub still lacking a common name despite the fact that it has been known to cultivation for 50 years.

In the Arboretum it has proved a slow growing bush, with stout, upright branches and rather bold deciduous foliage of medium green tone. The leaves vary in shape from broad obovate-oblong to almost ovate-lanceolate, have acute tips, wedge shaped bases and finely toothed margins. They color attractively in the fall showing the brilliant reddish purple tones characteristic of the group.

As true of most Euonymus there is nothing especially showy about the greenish flowers appearing in many-flowered cymes, but the fruits following compensate amply for the floral deficiency. Even while still green the uniformly four winged capsules (wings three quarters of an inch long) are noticeable, though not until after changing to bright crimson does their singular beauty really become evident. Then, gracefully suspended on pendulous, frequently branched pedicels four inches or more in length, the horizontally winged star-like capsules present an effect altogether charming. When the fruits are ripe they split open to reveal orange coated seeds. During the winter months further interest is evident in the olive green branches and in the unusually long, slender pointed buds.

Euonymus macroptera, being as yet unavailable in the trade, should interest nurserymen looking for something choice among specimen shrubs.

Euonymus oxyphylla (Miq.)

This is another rare Asiatic Euonymus claiming fruit as its chief ornamental attraction. Almost entirely shrubby in cultivation, remaining well within the 6 to 8 ft. height category, *"oxyphylla"* (no common name), reaches arborescent stature in its native Japan and Korea, growing to 25 feet tall and developing trunks of corresponding girth. Here it is slow growing and bushy.

To see a fruiting specimen at this season is to assure instant admiration, for there is undeniable beauty in the clustered three quarter inch dark red fruits dangling gracefully at the ends of the pendulous six inch stalks. Additional color is provided when the globose five-lobed capsules separate, revealing the orange coated seeds embedded within.

The foliage, while resembling that of *"macroptera"*, is from 3 to 4 inches long and up to 2½ inches wide, more uniformly broad ovate in shape and of leathery texture. It is smooth on both sides and the margins show the same fine serration. A further similarity between species is evident in both the summer and autumnal foliage color.

The round petaled, purplish suffused green flowers appearing in May in loose, many flowered cymes are more conspicuous than those of most species.

Still not available in the nursery trade.

Dawn Redwood, *Metasequoia glyptostroboides*

Since stating in the Bulletin a number of years ago (April, 1949) that the Dawn Redwood, then hailed as the "Living Fossil", would probably not prove hardy in the Chicago region, the subsequent wintering of several plants in the Arboretum has encouraged a more optimistic attitude as to the trees' future possibilities locally.

After all of the plants grown from the original shipment of seed received by the Arboretum from China in 1948 were lost during their first winter in the open, our climatic conditions were blamed as being too severe for a conifer accustomed to cool, rainy weather, winter temperatures rarely below freezing, high summer humidity and abundant rainfall. With a nine foot specimen and several smaller ones now showing every indication of becoming acclimated on the north slope of the Arboretum's Frost Hill, however, and reports of specimens thriving in other comparably difficult localities, the tree may eventually be removed from the "use with caution" class.

The discovery in 1945 of living specimens of the Dawn Redwood in the Central Chinese Province of Szechuan was considered the botanical find of the century, and rightly so, for it is a rare experience today for a new tree genus to be discovered in the North Temperate Zone. At first mistaken for the so called Water Pine, *Glyptostrobus pensilis,* to which it bears some resemblance, this remarkable survivor of the Ice Age was found to represent an entirely new genus, one closely related to and reputedly antedating the Redwoods and Big trees of California. Unlike the true Redwoods, however, the *Metasequoia* is deciduous (shedding its foliage seasonally) and has oppositely arranged branchlets, needles, flowers and cone scales. The flat needles range to an inch or more in length, are light green in color and soft to the touch. Their fine texture contributes to the trees' pleasing open appearance. The rate of growth is rapid and if one is to judge ultimate height by the size of mature specimens reported in China quite large trees may be expected.

Now available from nurseries, the Dawn Redwood is a fine subject for trial by the plant connoisseur.

Japanese Plum Yew, *Cephalotaxus drupacea* (Sieb. and Zucc.)

A yew that looks like a yew until fruiting discloses inch long purplish-green plum shaped drupes instead of the fleshy, ovoid, open centered bright red arils which earmark the Taxus, is the aptly named Japanese Plum Yew. Even though more than a century has elapsed since its introduction from Japan it has never been extensively planted, due both to its questionable hardiness in any but the milder parts of the country as well as to its lack of character as an ornamental. The irregularity and openness of habit typical of its shrubby aspect is of moderate interest only and as a small tree it is not sufficiently distinct from other Coniferae to warrant recognition. Collectors value it because of its comparative rarity.

Plum Yew foliage is an enlarged version of Taxus foliage, the abruptly pointed needles being 1 to 1¾ inches long, dark green and arranged

on the branchlets in a two ranked "V" formation. The Yew's luxuriance is noticeably missing.

In the Arboretum small specimens of the Japanese Plum Yew may be seen on Frost Hill.

E. L. Kammerer

The largest Dawn Redwood, *Metasequoia glyptostroboides* at the Morton Arboretum, a nine foot specimen on Frost Hill.

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